

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Kimball County, Nebraska

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed. The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (USDA, 1999) and "Keys to Soil Taxonomy" (USDA, 1998) and in the "Soil Survey Manual" (USDA, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 1996).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units in the Hydric Soil Interpretations table meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 1996).

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

These map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
3AAW: ALTVAN LOAM, MODERATELY DEEP, 1 TO 3 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
3ABW: ALTVAN LOAM, MODERATELY DEEP, 3 TO 5 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
3ACW: ALTVAN LOAM, MODERATELY DEEP, 5 TO 9 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
3Pn: PARSHALL SANDY LOAM, MODERATELY DEEP, 0 TO 1 PERCENT SLOPES	ALICE	No	---	---	---	---	---
3PnB: PARSHALL SANDY LOAM, MODERATELY DEEP, 1 TO 5 PERCENT SLOPES	ALICE	No	---	---	---	---	---
3RAW: ROSEBUD LOAM, MODERATELY DEEP, 1 TO 3 PERCENT SLOPES	ROSEBUD	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
3RBW: ROSEBUD LOAM, MODERATELY DEEP, 3 TO 5 PERCENT SLOPES	ROSEBUD	No	---	---	---	---	---
3RbW: ROSEBUD LOAM, MODERATELY DEEP, 0 TO 1 PERCENT SLOPES	ROSEBUD	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
3RCW: ROSEBUD LOAM, MODERATELY DEEP, 5 TO 9 PERCENT SLOPES	ROSEBUD	No	---	---	---	---	---
Aa: ALTVAN LOAM, DEEP, 0 TO 1 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
AaAW: ALTVAN LOAM, DEEP, 1 TO 3 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
AaBW: ALTVAN LOAM, DEEP, 3 TO 5 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
AaCW: ALTVAN LOAM, DEEP, 5 TO 9 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
AED: ARENTS, EARTHEN DAM	ARENTS, EARTHEN DAM	Unranked	---	---	---	---	---
AfAW: ALTVAN FINE SANDY LOAM, DEEP, 1 TO 3 PERCENT SLOPES	ALTVAN	No	---	---	---	---	---
BfBW: BAYARD FINE SANDY LOAM, 1 TO 5 PERCENT SLOPES	BAYARD	No	---	---	---	---	---
BhA: BRIDGEPORT LOAM, 1 TO 3 PERCENT SLOPES	BRIDGET	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
BhB: BRIDGEPORT LOAM, 3 TO 5 PERCENT SLOPES	BRIDGET	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
C-C: CANYON COMPLEX, 0 TO 9 PERCENT SLOPES	CANYON	No	---	---	---	---	---
C-D: CANYON COMPLEX, 9 TO 20 PERCENT SLOPES	CANYON	No	---	---	---	---	---
CcB3: CANYON LOAM, 0 TO 5 PERCENT SLOPES, ERODED	CANYON	No	---	---	---	---	---
CcBW: CANYON LOAM, 0 TO 5 PERCENT SLOPES	CANYON	No	---	---	---	---	---
CcD: CANYON LOAM, 9 TO 20 PERCENT SLOPES	CANYON	No	---	---	---	---	---
ChAW: CHAPPELL SANDY LOAM, 1 TO 3 PERCENT SLOPES	CHAPPELL	No	---	---	---	---	---
ChBW: CHAPPELL SANDY LOAM, 3 TO 5 PERCENT SLOPES	CHAPPELL	No	---	---	---	---	---
ChC: CHAPPELL SANDY LOAM, 5 TO 9 PERCENT SLOPES	CHAPPELL	No	---	---	---	---	---
CnBW: CANYON SANDY LOAM, 0 TO 5 PERCENT SLOPES	CANYON	No	---	---	---	---	---
CnD: CANYON SANDY LOAM, 9 TO 20 PERCENT SLOPES	CANYON	No	---	---	---	---	---
CRC: CANYON-ROSEBUD LOAMS, 5 TO 9 PERCENT SLOPES	CANYON	No	---	---	---	---	---
	ROSEBUD LODGEPOLE	No Yes	---	---	---	---	---
CRC3: CANYON-ROSEBUD LOAMS, 5 TO 9 PERCENT SLOPES, ERODED	CANYON	No	---	---	---	---	---
	ROSEBUD	No	---	---	---	---	---
CVC: CANYON-VEBAR SANDY LOAMS, 5 TO 9 PERCENT SLOPES	CANYON	No	---	---	---	---	---
	BLANCHE	No	---	---	---	---	---
Cy: CHEYENNE LOAM, 0 TO 1 PERCENT SLOPES	CHEYENNE	No	---	---	---	---	---
CyA: CHEYENNE LOAM, 1 TO 3 PERCENT SLOPES	CHEYENNE	No	---	---	---	---	---
DxC: DIX LOAMS, 3 TO 9 PERCENT SLOPES	DIX	No	---	---	---	---	---
DxD: DIX COMPLEX, 9 TO 20 PERCENT SLOPES	DIX	No	---	---	---	---	---
Dy: DWYER LOAMY SAND	DWYER	No	---	---	---	---	---
Gd: GLEN DIVE FINE SANDY LOAM	GLENBERG	No	---	---	---	---	---

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				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Go: GOSHEN LOAM, 0 TO 1 PERCENT SLOPES	GOSHEN	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
GoA: GOSHEN LOAM, 1 TO 3 PERCENT SLOPES	GOSHEN	No	---	---	---	---	---
GP: GRAVEL PIT	PITS	Unranked	---	---	---	---	---
Gv: GRAVELLY LAND	BLUERIDGE	No	---	---	---	---	---
He: HAVRE SILT LOAM	HAVERSON	No	---	---	---	---	---
INT: AQUOLLS	AQUOLLS	Yes	depression, terrace	2B3,3	YES	NO	YES
Ke: KEITH LOAM, 0 TO 1 PERCENT SLOPES	KEITH	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
KeAW: KEITH LOAM, 1 TO 3 PERCENT SLOPES	KEITH	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
KeBW: KEITH LOAM, 3 TO 5 PERCENT SLOPES	KEITH	No	---	---	---	---	---
Lx: LOAMY ALLUVIAL LAND	GLENBERG WT AT 0-1 FOOT	No Yes	---	---	---	---	---
		Yes	swale	2B3	YES	NO	NO
Pn: PARSHALL SANDY LOAM, DEEP, 0 TO 1 PERCENT SLOPES	ALICE	No	---	---	---	---	---
PnBW: PARSHALL SANDY LOAM, DEEP, 1 TO 5 PERCENT SLOPES	ALICE	No	---	---	---	---	---
PnCw: PARSHALL SANDY LOAM, DEEP, 5 TO 9 PERCENT SLOPES	ALICE	No	---	---	---	---	---
Rb: ROSEBUD LOAM, DEEP, 0 TO 1 PERCENT SLOPES	ALLIANCE	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
RbAW: ROSEBUD LOAM, DEEP, 1 TO 3 PERCENT SLOPES	ALLIANCE	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
RbBW: ROSEBUD LOAM, DEEP, 3 TO 5 PERCENT SLOPES	ALLIANCE	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
RbCW: ROSEBUD LOAM, DEEP, 5 TO 9 PERCENT SLOPES	ALLIANCE	No	---	---	---	---	---
RbD: ROSEBUD LOAM, 9 TO 15 PERCENT SLOPES	ROSEBUD	No	---	---	---	---	---
Rv: ROCK LAND	ROCK OUTCROP	Unranked	---	---	---	---	---
Rw: RIVERWASH	RIVERWASH	Unranked	---	---	---	---	---
Se: SCOTT SILT LOAM	LODGEPOLE	Yes	playa	2A,3	YES	NO	YES
	PONDED SOILS	Yes	playa	2B3,3	YES	NO	YES

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Sx: SANDY ALLUVIAL LAND	BANKARD WT AT 0-1 FOOT	No Yes	--- swale	--- 2B2	--- YES	--- NO	--- NO
Ta: TRIPP LOAM, 0 TO 1 PERCENT SLOPES	TRIPP	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2B3	YES	NO	NO
TaAW: TRIPP LOAM, 1 TO 3 PERCENT SLOPES	TRIPP	No	---	---	---	---	---
	LODGEPOLE	Yes	playa	2B3	YES	NO	NO
TaBW: TRIPP LOAM, 3 TO 5 PERCENT SLOPES	TRIPP	No	---	---	---	---	---
TaCW: TRIPP LOAM, 5 TO 9 PERCENT SLOPES	TRIPP	No	---	---	---	---	---
Tr: TRIPP FINE SANDY LOAM, 0 TO 1 PERCENT SLOPES	TRIPP	No	---	---	---	---	---
TrA: TRIPP FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	TRIPP	No	---	---	---	---	---
TrBW: TRIPP FINE SANDY LOAM, 3 TO 5 PERCENT SLOPES	TRIPP	No	---	---	---	---	---
VrAW: VEBAR SANDY LOAM, 0 TO 3 PERCENT SLOPES	BLANCHE WT AT 0-1 FOOT	No Yes	--- swale	--- 2B3	--- YES	--- NO	--- NO
VrBW: VEBAR SANDY LOAM, 3 TO 5 PERCENT SLOPES	BLANCHE	No	---	---	---	---	---
VrCW: VEBAR SANDY LOAM, 5 TO 9 PERCENT SLOPES	BLANCHE	No	---	---	---	---	---
VrD: VEBAR SANDY LOAM, 9 TO 15 PERCENT SLOPES	BLANCHE	No	---	---	---	---	---
W: WATER	WATER	Unranked	---	---	---	---	---
Wx: WET ALLUVIAL LAND	ALMERIA	Yes	flood plain	3,2B3	YES	NO	YES

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				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria

FOOTNOTE: There may be small areas of included soils or miscellaneous areas that are significant to use and management of the soil; yet are too small to delineate on the soil map at the map's original scale. These may be designated as spot symbols and are defined in the published Soil Survey Report or the USDA-NRCS Technical Guide, Part II.

Areas mapped as water or any map unit that contains one of the following conventional symbols is considered a hydric soil map unit: marshes or swamps; wet spots; depressions; streams, lakes and ponds.

1. All Histosols except Folists, or
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:
 - a. Somewhat poorly drained with a water table equal to 0.0 foot (ft) from the surface during the growing season, or
 - b. poorly drained or very poorly drained and have either:
 - (1) water table equal to 0.0 ft during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in),
or for other soils
 - (2) water table at less than or equal to 0.5 ft from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or
 - (3) water table at less than or equal to 1.0 ft from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or
3. Soils that are frequently ponded for long duration or very long duration during the growing season, or
4. Soils that are frequently flooded for long duration or very long duration during the growing season.